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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,764	03/16/2001	Zoran Ristic	P03965US1	7108

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EXAMINER
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MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/810,764

Applicant(s)

RISTIC ET AL.

Examiner

Ashwin Mehta

Art Unit

1638

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 October 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☒ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:


Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1,3-8,14-16,18,21 and 23-31.

Claim(s) withdrawn from consideration: 9-13 and 19.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

  
ASHWIN D. MEHTA, PH.D.  
PRIMARY EXAMINER

Continuation of 2. NOTE: there is insufficient written descriptive support for the recitation, "said nucleotide sequence having at least 80% homology to the sequence of SEQ ID NO: 6" in claim 1. In the paragraph bridging pages 17-18 of their response, Applicants argue that support for the recitation is found on page 11, 2<sup>nd</sup> full paragraph of the specification. However, that paragraph recites "80%" with respect to amino acid sequences. With respect to nucleotide sequences, the paragraph only indicates that nucleotide sequences that are substantially equivalent will encode proteins that are substantially equivalent.

Continuation of 3. Applicant's reply has overcome the following rejection(s): the rejection of claims 1, 3-7, 14-16, and 18 under 35 U.S.C. 112, 2nd paragraph, and the rejection of claim 1 under 35 U.S.C. 102(b). However, note that the amendment to claim 1 contains new matter, as discussed above.

Continuation of 5. does NOT place the application in condition for allowance because: Applicants' response does not overcome the rejection of claims 1, 3-8, 14-16, 18, 21, and 23-31 under 35 U.S.C. 112, 1st paragraph, for lack of written descriptive support. Applicants argue that the specification discloses SEQ ID NO: 6, which encodes a maize chloroplast elongation factor, EF-Tu, and has been used to identify 3 at least 3 heat shock proteins with homology to EF-Tu, SEQ ID NOs: 1, 4, and 5 (response, paragraph bridging pages 11-12). However, contrary to Applicants' assertion, the specification does not teach that SEQ ID NO: 6 was used to identify any other nucleotide or amino acid sequences. Applicants argue that the proteins have been shown to have a specific activity- molecular chaperone and thermal protection activity, and direct attention to "Patent Application Update, Figure 2" (response, paragraph bridging pages 11-12). However, no such update has been filed. It is also noted that any such update would represent new matter, as the information contained therein would not have been part of the original application as filed. Applicants also argue that Example 6 in the specification shows that maize hybrid plants containing increased levels of EF-Tu have increased resistance to heat and drought (response, paragraph bridging pages 11-12). However, the specification does not indicate that any of the protein bands referred to in Example 6 are encoded by SEQ ID NO: 6. Further, the amino acid sequences of SEQ ID NOs: 4 and 5 are not full length proteins. Furthermore, the claims do not indicate that the nucleotide sequences encode an elongation factor EF-Tu. Limitations of the specification are not to be read into the claims. Also, as discussed above, claim 6 introduces new matter

Applicants' response also does not overcome the rejection of claims 1, 3-8, 14-16, 18, 21, and 23-31 under 35 U.S.C. 112, lack of enablement. Applicants argue that Bayer AG v. Housey Pharmaceuticals Inc., 68 USPQ2d 1001 (CA FC 2003) is not applicable to 35 U.S.C. 112 (response, paragraph bridging pages 13-14). However, this decision does show that the courts do not consider that processes involved in the identification of data are not steps involved in the production of a final product. Applicants argue that the specification describes the identification of a heritable trait that confers heat and drought resistance, that several heat shock proteins, SEQ ID NOs: 1, 4, and 5, were isolated and purified, and that plants that were heat resistant produced the 45 kD EF-Tu (response, page 15, 1st full paragraph). However, SEQ ID NOs: 1, 4, and 5 are not complete protein sequences. Further, the specification does not actually teach that SEQ ID NO: 6 encodes any of the 45 kD proteins expressed in the discussed heat and drought tolerant maize plants. Applicants argue that method for isolating proteins sharing homolog with EF-Tu and the corresponding nucleotide sequences are known to those skilled in the art (response, page 15, 2nd full paragraph). However, see *In re Bell*, 26 USPQ2d 1529, 1532 (Fed. Cir. 1993) and *In re Deuel*, 34 USPQ2d, 1210 (Fed. Cir. 1995), which teach that the mere existence of a protein does not enable claims drawn to a nucleic acid encoding that protein. Applicants also argue that they have demonstrated an association between increased levels of chloroplast elongation factor EF-Tu and drought and heat tolerance in plants (response, page 16, 1st full paragraph). However, the specification does not teach that SEQ ID NO: 6 actually has the activity of a chloroplast elongation factor EF-Tu. Further, the claims do not limit the nucleotide sequences to those that encode a chloroplast elongation factor EF-Tu. Regarding the issue that claim 7 encompasses non-plant host cells- the claim amendment overcomes this issue.